

Sathwik Yarlagadda

Master's Student and Co-Founder of Oni Technologies

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EDUCATION

Rice University

Master of Computer Science, Concentration in AI

Houston, TX

Jan. 2024 – May 2025

University of North Carolina at Charlotte

Bachelor of Science in Computer Science, Concentration in Data Science

Charlotte, NC

Aug. 2021 – Dec. 2023

EXPERIENCE

Freelance Software Developer

Bionics Systems

June 2024 – Present

Waxhaw, NC

- Developed a React Native mobile application with Expo from scratch to manage bonus data across **59 franchise stores** leading to a **16% increase** in bonuses
- Implemented Microsoft authentication through Supabase for over **50 users**, enabling secure user login and dynamic role-based access to store-specific data
- Boosted manager engagement by replacing dense Power BI visualizations with intuitive data displays and filtering options, resulting in a **45% rise in app usage** for decision-making across stores, areas, and districts

Software Engineering Intern

Patient Xpress

May 2023 – Aug. 2023

Laguna Niguel, CA

- Built a Python pipeline to process **400+ customer voicemails weekly**, transcribing audio using OpenAI Whisper and categorizing feedback with a fine-tuned BERT model, reducing manual sorting time to **under 1 hour per week**
- Fine-tuned a BERT model for voicemail categorization by annotating **~1,200 voicemail transcripts** using Label Studio, enabling precise classification into operationally relevant categories (e.g., appointment requests, complaints)
- Documented and modularized the pipeline to support seamless integration with more advanced models or LLM APIs like OpenAI, enabling future improvements without significant re-engineering

Undergraduate Teaching Assistant

University of North Carolina at Charlotte

Jan. 2023 – May 2023

Charlotte, NC

- Evaluated **100+** student assignments and projects, providing constructive feedback to enhance understanding and improve class performance
- Assisted **40+** students in identifying and resolving Java coding errors, improving their debugging skills and promoting independent problem-solving through assignments
- Conducted weekly office hours, helping **over 20** students deepen their comprehension of course topics

PROJECTS

ParanoidPicks Sportsbetting Platform | Next.js, React, TypeScript, Supabase

Oni Technologies LLC

May 2024 – Present

- Built a full-stack website using Next.js and Supabase providing user authentication, data management, and real-time updates
- Improved notification visibility by 60% as measured by user engagement metrics, by implementing authentication through Discord and building a custom Discord Bot for real-time notifications
- Streamlined subscription management by 35% through integrating Stripe
- Increased admin task efficiency by 50% through developing advanced admin features for user and data management

Learning Rate Scheduling Experiments for Machine Learning | Python, PyTorch, sklearn

Rice University

March 2024 – May 2024

- Achieved a 5.2% improvement in CIFAR-10 classification accuracy using Chebyshev fractal learning rate schedules compared to traditional decay-based schedules
- Reduced training time by 18% for MNIST classification by applying fractal learning rates, achieving over 98% accuracy within fewer epochs than baseline methods
- Improved R² scores by 7% for California Housing regression tasks than standard approaches
- Conducted experiments with custom ResNet-18, CNN, and dense network architectures on datasets with varying complexity and documented findings in a research paper, outlining the experimental setup and effectiveness of the proposed learning rate schedules

Oni Trade Sync | Python, Typescript, FastAPI, Electron, React, PostgreSQL, RabbitMQ, AWS

Oni Technologies LLC

June 2023 – Present

- Enabled subscription-based automatic trading by designing and developing an internal API with FastAPI and a Desktop Application built with Electron and React
- Accomplished a 5-second end-to-end trade execution time by deploying to AWS EC2 with Github Actions CI/CD pipeline
- Implemented login, signup, and other user features with Supabase to sustain over 50 monthly active users
- Increased user engagement by 45% measured by interaction metrics, by providing custom Discord alerts to provide relevant trade execution updates tailored to individual users

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, TypeScript, HTML/CSS, Java, SQL (MySQL & PostgreSQL), C++, C

Frameworks and Libraries: Node.js, React, Electron, Next.js, React Native, Jupyter, Flask, FastAPI, TensorFlow, PyTorch, scikit-learn (sklearn), Pandas, NumPy, Matplotlib

Databases: MongoDB, MySQL, PostgreSQL

Developer Tools and Cloud Platforms: Git, Docker, Expo, RabbitMQ, Google Cloud Platform (GCP), Amazon Web Services (AWS), OpenAI API (LLMs)